DOCUMENT RESUME

ED 027 155 RE 001 542

By-Morrison, Coleman; And Others

Staff After-Effects of Participation in a Reading Research Project: A Follow-Up Study of the Craft Project.

City Univ. of New York, N.Y. Div. of Teacher Education.
Spons Agency-Office of Education (DHEW), Washington, D.C.
Report No-CRP-2677
Pub Date 68
Contract-OEC-5-0570-2-12-1
Note-41p.
EDRS Price MF-$0.25 HC-$2.15
Descriptors-Administrator Evaluation, *Curriculum Evaluation, *Followup Studies, *Negro Students, *Primary Grades, Reading Instruction, Reading Materials, *Reading Research, Teacher Evaluation, Urban Schools

Characteristics of a reading program sustained 3 years following the conclusion of the original research study were examined to see what methods and materials had been retained in participating schools. These schools were those which had taken part in the CRAFT program in 12 predominantly Negro New York City schools. Results of an inventory of teacher attitudes were compiled and examined for this study. The report includes information on individual teacher reactions, administrative attitudes, and present utilization of experimental methods and approaches. It was found that, after trying several experimental methods, teachers returned to a basal reader approach, incorporating ideas from the experimental methods. Administrators, after trying heterogeneous grouping, returned to homogeneous grouping with one exception. References and data tables are included. (MD)

ED0 27155

DIVISION OF TEACHER EDUCATION OF THE CITY UNIVERSITY OF NEW YORK
535 EAST 80TH STREET, NEW YORK, N. Y. 10021

Office of Research and Evaluation
RESEARCH REPORT

68-15

STAFF AFTER-EFFECTS OF PARTICIPATION IN A READING RESEARCH PROJECT: A FOLLOW-UP STUDY OF THE CRAFT PROJECT*

Coleman Morrison
Albert J. Harris
Irma T. Auerbach

The City University of New York

U. S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

THIS DOCUMENT HAS BEEN REPRODUCED EXACTLY AS RECEIVED FROM THE PERSON OR ORGANIZATION ORIGINATING IT. POINTS OF VIEW OR OPINIONS STATED DO NOT NECESSARILY REPRESENT OFFICIAL OFFICE OF EDUCATION POSITION OR POLICY.

RE 001 542

*This is a study of the after-effects of the CRAFT Project, a four-year study of beginning reading financed in part by Contracts Nos. 2677 and 5-0570-2-12-1 of the Cooperative Research Program of the Office of Education, U. S. Department of Health, Education, and Welfare. Additional support was given to the project by the Board of Education of The City of New York and the Division of Teacher Education of The City University of New York, whose Office of Research and Evaluation conducted the project.

542

STAFF AFTER-EFFECTS OF PARTICIPATION IN A READING RESEARCH PROJECT: A FOLLOW-UP STUDY OF THE CRAFT PROJECT

Coleman Morrison, Albert J. Harris, and Irma T. Auerbach
The City University of New York

In June, 1964, the CRAFT Project, a study designed to determine the effectiveness of different ways of teaching beginning reading to disadvantaged urban Negro children, was undertaken by the Office of Research and Evaluation, CUNY. This undertaking was part of a larger nation-wide study designed to assess the merits of various ways of teaching beginning reading.

The CRAFT Project consisted of an original study which extended from grade one through grade three, and a Replication Study conducted in grades one and two.

The classroom work of the CRAFT Project was concluded in May, 1967, and a report of the findings was published the following year (Harris, et al., 1968). Simultaneous with the publication of this report, a follow-up study was initiated in an effort to determine what residual effects the program had on the participants and the curriculum after the experiment was officially over.

Specifically, the staff was concerned with the teachers' subsequent use of experimental methods and materials, and the overall effect the study had on administrative policies, teaching styles, and reading curriculum. In addition, efforts were made to attempt to determine the extent of satisfaction or dissatisfaction members of the administration and faculty had with the administrative arrangements of the research study.

Overview of the CRAFT Project

In order that the results of the follow-up study will be more meaningful to the reader, a brief overview of selected aspects of the three-

year CRAFT Project will be presented here.

Instructional Program

Two instructional reading approaches were used, consisting in turn of two methods in each approach. In addition, a fifth method called the Pilot Method was introduced in the Replication Study.

The Skills Centered Approach (SC) included the Basal Reader Method (BR), in which the teacher relied on conventional basal readers and their accompanying manuals and workbooks, and a Phonovisual Method (PV) which combined use of basal readers with the phonic system developed through use of Phonovisual materials.

Within the Language Experience Approach (LE) there was a regular Language Experience Method (LE) in which reading materials were largely developed from the experiences and verbalizations of children. Library and trade books were used for supplementary instructional purposes. The second instructional program in this approach was a Language Experience Audio-Visual Method (LE-AV) in which the basic LE Method was supplemented by several kinds of audio-visual equipment (e.g., tape recorders, cameras, projectors).

The Pilot Method, a fifth method, combined elements of the LE-AV Method with word recognition instruction in the PV system.

It should be noted that the BR Method was least different from previous instruction for those teachers who had been employed in the New York public schools before the study began. The other programs presented some relatively unfamiliar instructional techniques. For example, the PV Method involved a different method of teaching phonics, and the LE Method relied extensively on the oral language of children as well as on small group and individualized reading procedures. The LE-AV Method was undoubtedly least familiar to the teaching participants.

Experimental Precautions

All four methods were treated as "experimental" methods and there was no control group in the usual sense. Three groups of teachers were using instructional procedures new to them, and the fourth group was using a procedure somewhat different from their previous practices.

Uniqueness of the four methods was established by class visits, by information obtained from Daily Logs, and from scores devised from an observational scale used by staff members in their visits to classrooms.

In addition to the above controls all teachers had similar workshop schedules as well as visitation and consultation programs.

In the second year of the study, however, there was an interruption of consultant services for participants in the LE-AV Method. The audio-visual consultant who had been associated with the study during the first year resigned early in the second year. The position was filled several weeks later only to be vacated a second time for several weeks during the second semester. Because of this interruption, equipment necessary for the effective functioning of that method failed to reach the classrooms at the appropriate time. In addition, some teachers involved with this method made little use of the equipment due to the fact that they did not receive adequate instruction in the operation or possible uses of it.

Teachers

Ninety-two teachers participated in the experimental aspects of the study over the three-year period, including several who were in the project for only a portion of the time.

Almost all of the teachers volunteered to participate in the project. The few exceptions were beginning teachers who were assigned to the study by

their administrative superior. Teachers drew lots for one of the two methods assigned to each school. In the second grade some consideration was given to teacher preferences.

The participants varied greatly in respect to their age, teaching experience, and educational level, although none of these characteristics correlated significantly with pupil achievement.

Schools

Twelve elementary schools in New York City participated in the first year study. All but one of these schools were in neighborhoods where the median annual family income ranged from $3,744 to $3,918. The twelfth school, in a lower middle-class Black neighborhood, enrolled a large number of children living in foster homes.

Pupils

The original study started with 1,378 children; the Replication Study had 679 first graders. Nearly all of the children were non-white, with fewer than ten per cent Puerto Ricans.

Because pupils in the New York City public school system are not given intelligence tests, no definitive information regarding mental ability of the pupils was available. However, on the readiness tests administered during the first year of the study the children achieved a median score near the 20th percentile on seven readiness pretests.

In-service Program

During the first year of the project an intensive teacher education program was conducted by the assistant director of the project and by six part-time consultants provided by the Board of Education. A workshop for teachers

in each of the four methods met twice before school opened, then weekly for three months, then bi-weekly. In addition, each teacher was visited by the assistant director and one or more of the consultants. Teachers were also observed eight times by research assistants working with the study staff at the Office of Research and Evaluation.

In the second year of the study two workshops were held, once each in September and January. In addition to these central meetings, district meetings were held monthly, and these were organized and led by the reading consultants.

A less intensive program of supervision and assistance was carried out for the Replication 1 and 2 study teachers, since all but one of these had already participated in the original study. The number of after-school meetings were halved and teachers were visited less often.

Teacher Attitude Inventory

The Teacher Inventory of Approaches to the Teaching of Reading was developed by the Reading Study Project Committee of San Diego County Department of Education. The inventory was selected by the directors involved in the Cooperative Research Program of which CRAFT was a part.

Classroom teachers were asked to judge 33 questions in terms of accuracy for describing their particular approach to the teaching of reading. A five-point scale was provided in which a judgment of "5" beside the item indicated agreement, whereas a score of "1" indicated lack of agreement. The 33 questions were in the form of statements which represented a random mixture of three scales: basic, individualized, and language experience.

Each scale required an answer be given to statements regarding:

1. Teacher's purpose for reading instruction.
2. The basis of the plan for reading instruction.
3. The teacher's method of motivation for reading instruction.
4. Materials of reading instruction the teacher uses.
5. Teacher method of organizing the classroom for reading.
6. How the teacher provides for direct reading instruction.
7. How the teacher provides for supplementary reading instruction.
8. How the teacher includes skill development in her reading program.
9. How the teacher incorporates vocabulary development in her reading program.
10. Provisions for individual differences in the reading program.
11. The teacher's criteria for evaluation.

In the CRAFT Project the BR and FV Methods corresponded to the statements on the Basic Scale. The Language Experience Scale represented the beginning stages of reading in the LE Approach, while the Individual Scale represented the later stages of the language experience variable.

Scoring required separating the three combined scales and totalling the scores made on questions relative to a given scale. A score from 11-22 on any scale indicates disagreement. Scores from 23-33 indicate a tendency to disagree, 34-44 indicate a tendency to agree, and 45-55 indicate agreement with the philosophy represented by a particular scale.

The Teacher Inventory of Approaches to the Teaching of Reading was administered to CRAFT first grade teachers at the initial session of the training workshop in September, 1964 (CRAFT 1 Pretest). It was administered again at the end of the academic year in June, 1965 (CRAFT 1 Posttest and Replication 1 Pretest). Those teachers remaining in the CRAFT Replication

Study completed the inventory for the third time at the end of their second year of participation in June, 1965 (Replication 1 Posttest).

Second grade teachers followed an identical procedure. They completed the inventory for the first time before the CRAFT second grade instructional program began in September, 1965 (CRAFT 2 Pretest). The inventory was administered again in June, 1966 (CRAFT 2 Posttest and Replication 2 Pretest), and for those teachers remaining for the second grade Replication, also in June, 1967 (Replication 2 Posttest).

When the study of residual effects was undertaken in the spring of 1968, all teachers who could be located in the classroom were again asked to complete the inventory.

The Follow-Up Study

Procedures

The general plan of the study involved the securing of information relating to current reading practices in classes taught by former CRAFT teachers as well as information pertaining to administrative practices and opinions obtained from former CRAFT school principals or assistant principals. In addition, teacher attitudes in relation to the method they taught and reactions to the implementation of the research design were solicited.

These areas of investigation were pursued by means of 1) a field study, and 2) an attitude inventory test.

The field study consisted of visits to each of the participating schools, where teachers and administrators were interviewed by the assistant director and two associates assigned to the study. In some instances where teachers were not available, the interview questionnaire was mailed to them. Fifty-seven teachers in 11 schools participated in the follow-up and ten CRAFT administrators were interviewed.

Complete test data on the San Diego Attitude Inventory was available for 33 teachers.

Results of the Follow-Up Study

Results of the study are presented in three parts: part 1, the reactions of the teachers; part 2, the reactions of the administrators; and part 3, the findings of the San Diego Attitude Inventory.

Teacher Reactions

Extent of Change

One of the major areas of investigation was whether or not teachers were still using the teaching method they employed during the CRAFT Project. Responses indicated that an overwhelming number of teachers were not. Specifically, 43 of the 57 teachers interviewed said that they were not using the CRAFT method in the same way, 7 said that they were, and 7 other teachers' responses were not applicable since their present teaching responsibilities did not include reading instruction.

A breakdown of the findings by method indicates that of the 12 teachers in the BR Method, 1 teacher is now using it in the same way, 10 are not, and 1 response was not applicable; of the 15 teachers in the PV Method, 3 are now using it in the same way, 9 are not, and 3 answers were not applicable; of the 13 teachers who were formerly in the LE-AV Method, 11 are no longer using the method in the same way, and 2 responses were not applicable; and of the 12 teachers who were in the LE Method, 11 are no longer using it in the same way, and 1 response was not applicable.

Of the 4 Pilot teachers, 3 continued to follow the Pilot Method and 1 teacher, for whom the materials are no longer available, does not. One other teacher, who taught the BR Method the first year and the LE Method the second year, now uses a combination of these methods.

Nature of Change

Having determined the extent of change that had taken place since the conclusion of the comparative study, attention was directed to the kinds of changes that had been affected within each of the methods.

Basal Reader Method. As far as BR teachers were concerned, most indicated that the adaptation consisted of utilizing more aspects of the LE Approach and, in particular, more extensive reliance on experience charts and the oral language of children.[1] Less frequently mentioned was the fact that some teachers have moved away from exclusive reliance on the manual, while others say that they are pacing the children within the readers differently than they had during the project. While use of components of the LE Approach appeared to be the major shift among BR teachers, this was by no means the only one. Two teachers (involved in a new experiment) are using linguistic materials. A third is using SRA materials to supplement the BR program, and a fourth is using an individualized program in which BR and trade books or library books are used interchangeably. The one teacher who continues to rely on the BR as the single tool of instruction during the reading period is doing so, she said, because the organizational pattern of the readers best suits the needs of her children and because the manuals provide excellent instructional guidance. In addition, she reported that workbooks accompanying the BR are beneficial for her children.

Phonovisual Method. Despite the fact that a majority of teachers in the PV Method no longer use the approach in the same way that they did during the research study,

---

[1]During CRAFT, BR teachers were encouraged to use experience charts, etc. during social studies, science, and for current events.

a majority of them were nonetheless enthusiastic about the materials. The charts which accompany the program were cited as a particular advantage and the method itself, while being described as "well organized" and one in which "teachers can become involved easily without training," also was felt to provide children with "confidence," "self assurance," and "motivation." The development of listening skills was cited as an added advantage by some teachers.

On the other hand, there were PV teachers who pointed out that in some instances the PV games were "too silly," that the program itself was boring and repetitious, that high achievers don't necessarily profit from such a highly structured approach and that provisions within the approach had not been made for various sounds represented by one letter, such as the two sounds of "s" and the two sounds of "d." Other negative points made concerned the lack of grapheme consistency from the chart accompanying the method to printed materials, and the problems involved in teaching children as a total class group, a policy advocated by the authors of the PV Method.

One point mentioned above concerning the disparity in children's achievement needs further elaboration since some controversy does exist among teachers relative to the effectiveness of the PV program for children who are labeled as "slow learners." On the one hand a few teachers indicated that the method was good for slow children who need the kind of repetition that the program provides. Other teachers, however, felt that the program was good for bright children but not slow children. This group indicated that the slow child has trouble grasping phonics and frequently cannot make the necessary application of phonic instruction, taught in isolation, to the process of reading in a functional setting.

PV teachers had at least one thing in common with BR teachers. Both are experimenting with elements of the LE Approach. Thus, it would appear the predominant mode of instruction being utilized by PV teachers today would include reliance on the basal reader as the chief tool of instruction, with the Phonovisual materials being used in a supplementary capacity, and elements of the LE Method also being used to supplement basal instruction.

Language Experience Audio-Visual Method. As previously indicated, none of the teachers who formerly were in the LE-AV group are now using that method as the chief tool of instruction. Rather, they have adopted or reverted to an adoption of BR materials for main instructional purposes, using the LE-AV equipment in a supplementary capacity. In addition to the BR materials, many LE-AV teachers are using phonic materials. The reasons given for the transfer from LE-AV to other instructional materials are numerous. The difficulty in implementing the LE-AV Approach was cited most frequently. Particularly, they noted the problems involved in editing children's oral vocabulary and the difficulty in controlling the oral vocabulary of these children. The absence of any skills continuity in the LE Approach, together with the lack of structure, were two points also stressed by a number of teachers. Other teachers felt that there was no transfer of skills taught when experience charts were used to stories in the readers; that it does not appear practical for teachers to develop their own instructional materials when commercial ones are already prepared and available; that words provided by the children are difficult to reinforce through exclusive reliance on experience charts; and that books that were available in the classroom to supplement the stories provided by children were not appropriate for the instructional level of these same children.

Other LE-AV teachers noted problems peculiar to or unique to the children themselves. These included the recurring complaint that many of the children could not compose stories and consequently the teachers did not have adequate materials on which to base a skills program. In addition, teachers noted that some children wanted books that were similar to those used by other first graders and, not being provided with them, lacked the necessary motivation to want to learn to read. One teacher indicated a different reason for reverting to basal reader materials. She cited the fact that children were being tested by achievement measures which relied extensively on basal reader vocabulary, and as a consequence, felt that the scores made by children using materials other than basal readers would be considerably depressed.

In defense of the visual aids used in this method, many teachers indicated that they were good for motivation and for supplementary instruction of skills previously introduced. Others felt that the equipment was particularly motivating for slow children or for low-achieving children; but one teacher addended her endorsement by stating that such motivation only lasted the first few times that the equipment was used. The overhead projector and use of filmstrips were cited specifically as aids in teaching phonics. The use of the Polaroid camera was believed to be very advantageous in developing oral language and experience charts related to the pictures taken by the classroom teacher.

In general, it appears that the LE-AV teachers look upon the equipment that was used in that method to be acceptable for supplementary instruction, while finding that the more highly structured and organized basal reader should be used as the predominant tool of instruction.

Language Experience Method. Similar to LE-AV teachers, those instructors who were in the LE Method have moved away from exclusive reliance on that method to a combination method. Presently they utilize the basal reader as the chief tool of instruction and use components of the LE Method primarily for enrichment. Teachers in the LE Method indicated that instruction by language experience alone required much hard work and considerable thinking and that one had to be much more creative in the development and adaptation of materials than if they were allowed to use commercially prepared texts. The structure provided in basal reader materials was a major reason for once more adopting these materials.

Other shortcomings of the LE Approach, as noted by teachers, were that the CRAFT children found it difficult to work independently in small groups, and that there was not sufficient time for the teacher to develop all of the skills necessary to help the child become a mature reader in an unstructured setting. Nevertheless, almost all of the LE teachers felt that a combination of the LE Method and the BR Method was desirable.

In looking at the total CRAFT teacher population, it appears that almost all teachers are now using a method that is somewhat different from the one they used during the CRAFT Project. The resultant method being used by the BR and PV teachers has been modified to a much smaller degree than that being used by the LE and LE-AV teachers. In almost all instances, the BR Method is now being used as the chief tool of instruction and it is being supplemented by Phonovisual charts and by components of the LE Method and audio-visual equipment.

Extent of Satisfaction with Adapted Methods

Asked to indicate the extent of satisfaction they were experiencing with the method they had adapted from previous methods,

23 teachers indicated that they were very satisfied, 13 teachers said they were satisfied, 2 that it was good, 1 that it was excellent, 2 that it was extremely satisfying, 1 said it was satisfying with reservations, 1 said it was reasonably satisfying, 2 said they "love it," 1 said there was no difference between the method now being used and the previous method, and 4 teachers said they were not yet able to evaluate the extent of their satisfaction with the program.

In a related question, teachers were asked if they would continue with the method they were currently using. Responses to this question closely paralleled the extent to which they were satisfied with their existing program. An overwhelming majority of teachers, 34, said they will continue to use the combination approach in subsequent years. Two also answered in the affirmative with the proviso that they would do so if the equipment will be available. The remaining respondents indicated the fact that they would "probably" continue with the same method, but that it will depend on the caliber or nature of the class. Two teachers admitted they would prefer a change.

It would appear then from the foregoing that the teachers wholeheartedly endorse a combination method of instruction rather than a "pure" method and that the prospect for continuing a method utilizing the strengths of various existing programs is very good.

An effort was made to determine the extent to which teachers felt that they could become comfortable and secure with a particular method. The responses to this question indicated that an overwhelming majority of teachers in the LE and LE-AV Approach felt that it would take a minimum of two years to become comfortable and secure with that particular method, whereas teachers in the BR and PV Methods felt, by and large, that one year would suffice. A

minority of teachers said that it would depend on who was doing the teaching, and two respondents said that it would depend on the children. By and large, however, LE Approach teachers felt that they could not evaluate the effectiveness of their program within a one-year period; whereas the BR and PV teachers felt that they could with the materials assigned to them. It must be noted again, however, that BR teachers were continuing with an approach that they had previously used (with some variations), and that teachers in the PV Method were relying essentially on basal readers as the chief tool of instruction. Accordingly, the adoption of each of these two methods was not a dramatic departure from what most of these teachers had been doing in the past, whereas, the converse holds true with teachers in the LE and LE-AV Methods. Only one teacher in the LE-AV Method said that she would feel comfortable and secure after one year in that program and only two teachers in the LE Approach responded similarly.

Impact on Teacher Performance

During the interview period an attempt was made to determine the kind of impact that the CRAFT Project had on teacher performance. Almost all of the 33 teachers indicated that they had grown professionally as a result of the study. Specifically, 18 cited the fact that they were more "effective teachers, 11 felt that they were "motivated" through participation, 3 others said that they were "greatly motivated," and 5 teachers said that the project had a favorable impact on their attitude. Teachers were also queried about their morale during the progress of the project and here there appeared to be a clear-cut dichotomy between those teachers who felt that project participation did boost their morale and those who felt the converse was more accurate. Twelve teachers felt that their morale was favorably affected whereas 10 teachers felt that their morale was lowered. This latter group mainly included teachers in the LE-AV Method and

they attributed the lessening of their morale to delays in getting needed equipment and assistance in learning to use it.

However, the overall response by teachers in the four methods seems to indicate that most of them appreciated and benefited by the material and equipment that was provided to them, by the halo effect of participating in a "new" program, and by the fact that they received considerable help from consultants. Teachers also felt that they were helped by the opportunity to share their ideas with other teachers on numerous occasions. Specifically, within the LE Method teachers remarked on their self-growth occasioned by the necessity for developing independent activities for children. They felt that this activity enhanced their creativity and affected the learning patterns of children. Teachers in the LE Method also indicated that knowledge of new materials had an impact, not only on the reading program per se, but in other curriculum areas. A negative note was sounded by one teacher who indicated that the LE Method had a tendency to frustrate children. No further elaboration was provided.

Within the LE-AV Method, almost all the teachers commented on the benefits accruing from the materials and equipment provided to them. In addition, they felt that they grew professionally because they became aware of the need for specific skills development among children and became more acutely aware of children's needs. Other teachers attributed an increase in their effectiveness to several sources, notably to the friendly atmosphere that existed within the classroom, to the freedom provided them to develop creative approaches to teaching, and to the fact that they were able to "get out of a teaching rut."

On the negative side, LE-AV teachers indicated that their morale, effectiveness, and attitude was to some extent lowered because of the lack of

organization in initiating the project. Others complained about the after-school meetings and still others said that they did not like the idea of using children as "guinea pigs" irrespective of the method.

Within the PV Method it was evident again that the adoption of a "new" approach to word analysis and the availability of special materials was considered an asset by many teachers. This, plus the workshops and the in-service education program, which one teacher said was invaluable, appeared to have beneficial effects on those participating in the project. One teacher said that she began to like teaching for the first time, and another commented on the improvement of children's achievement. Both of these teachers indicated that their teaching effectiveness had improved.

On the other hand, three teachers in the PV Method felt that their impact was negatively affected; two, because they felt the structure of the program deterred them from expanding professionally; and a third, who cited the mobility of children as a detriment to teaching effectively with Phonovisual materials.

Commenting on the favorable aspects of their professional growth and effectiveness, teachers in the BR Method indicated that participation in the study provided them with an opportunity to examine their own teaching style, that help from the consultants provided stimulation, that they learned how to work better with heterogenously grouped children, that they had a greater awareness of the time factor in teaching reading, that they became more knowledgeable about the reading act, and that the interchange with other teachers had beneficial results. On the other hand, three teachers indicated a lessening of their effectiveness because of the restrictions imposed upon them through excessive reliance on basal reader materials. One other said that there was no change in her professional growth,

effectiveness, or attitude because the program that she used in CRAFT was not substantially different from what she had used in the past.

All four teachers in the Pilot project who were using a combination method expressed enthusiasm for the project and their participation in it had an obvious impact on their professional growth and effectiveness. Specifically, they mentioned the great response they received from children, the awareness of the ways in which children learned to read, their increased knowledge of individual differences among children, and the opportunity they had to share with other teachers.

In response to the question, "What aspects of the CRAFT Project did most to influence the way you are now teaching?" replies were conditioned by the method that teachers had been using. For example, teachers in the LE Method said that that particular method did most to influence the way they are now teaching, whereas teachers in the PV sequence said that that particular method and the materials that they used influenced the way they were now teaching. Similarly, the exposure to audio-visual equipment influenced teachers in that method. Otherwise, there was a scattering of responses such as: "the variety of books made available to me," "the fact that I had been assigned to another approach gave me the courage to depend less on basal readers," "use of illustrative material," "consultant help," "talking to other teachers," and "observing other methods."

In general, however, it appears that the method rather than any peripheral influence did more to mold current teaching styles than other factors.

Effect on Non-CRAFT Teachers

Despite the fact that in exploring the impact of CRAFT on those teachers who participated in the program it was evident that the professional growth of many teachers could be attributed to sharing sessions, this sharing presumably did not extend beyond teachers within the project itself.

Of the teachers interviewed, 37 said that they did not know any other teachers who changed to a CRAFT reading program, while 14 indicated that some changes took place as far as other teachers were concerned. This latter figure is somewhat misleading since many of the changes that took place did so in one school in which a number of teachers adopted aspects of the PV Method.

Apart from that school change, two teachers indicated that they were instrumental in changing other teachers to the LE Approach, two indicated that other teachers were changed to the LE-AV Method, and understandably, none of the teachers indicated that they had influenced their colleagues to change to the BR Method, since almost all teachers were already using basal reading materials.

Teaching Style

Another area of inquiry was concerned with the style of present teaching and whether or not this teaching style had been influenced by participation in the CRAFT Project. Of the respondents, 34 indicated that their teaching style had been influenced; 13 indicated that it had not.

In a related area of inquiry, an overwhelming majority of teachers felt that there was a direct relationship between the teacher's personality and the method of instruction used in the CRAFT Project. Although a handful of teachers insisted that the relationship between the personality and the method was not as important as other attributes (e.g. the attitude of the teacher toward the method, her enthusiasm for the method, her dedication as a teacher, her qualifications and experience, her sensitivity to the approach being used), the majority of teachers questioned identified numerous characteristics that they felt were associated with teachers using the SC Approach and those in the LE Approach. In general, SC teachers were

characterized as those being "highly structured" and those who were concerned with control and discipline in the classroom. This categorization was generally made by teachers in the LE Approach. Other adjectives ascribed to the SC teacher included the following: inhibited, rigid, organized, secure, stagnant, conservative, curriculum-guide oriented, uncreative, formal, older, self-disciplined, well-ordered, and authoritarian. These teachers, it was felt, are interested in routine, order, exactness, structure, safety, and security. On the other hand, the LE teacher was characterized as a creative, flexible, person with an outgoing personality. Other adjectives used to describe the LE teacher were: innovating, progressive, adaptive, confident, self-assured, independent, informed, permissive, dynamic, worldly, artistic, young, enthusiastic, tolerant of noise, relaxed, sophisticated. In contradistinction to these accolades, one teacher ascribed laziness to the LE Method teachers on the premise that a "a lazy person would choose the LE Method because you're on your own and it is easy to do very little work with it."

Taking a neutral stand on the situation, one teacher indicated that a dynamic person will arise above a restricting curriculum and that a dull person will bring dullness to any method.

Skills Influence

An effort was made to determine which kinds of skills are now being emphasized by teachers as a result of the CRAFT Project. It appears that the teaching of phonic analysis now plays a more important part in the teachers' instructional program than hithertofore. Apart from the emphasis on phonics, the teaching of word analysis skills other than phonics appears to be emphasized by a number of teachers as well as the development of critical thinking skills. Responses to both of these latter components of the reading program

were equally divided among teachers in all four methods. In descending order of frequency, teachers now emphasize auditory discrimination, perceptual discrimination, comprehension skills, concept formation, and vocabulary development.

A related question attempted to determine the extent of time devoted to various activities and, particularly, whether teachers spent more or less time on an activity than they did previous to the CRAFT Project. Here, again, teachers indicated that they spend more time on the teaching of phonics than they did before, more time on the use of experience charts than hitherto-fore, and more time on writing activities; both of these latter components are related to the LE Approach.

In-Service Program

In general, there appears to have been mixed reaction to the in-service program. Visitations by consultants, and aid offered by them appears to have been more meaningful and desirable than the after-school meetings. In this respect it might be added that meetings held in Manhattan meant that, in some instances, teachers had to travel an hour by public transportation to get to the meeting and another hour or more to return home.

Specifically, 20 teachers reacted unfavorably to the central in-service workshop meetings as opposed to 12 who found that these meetings were helpful. On the other hand, 17 teachers favored the consultant services they received as opposed to nine who found them unhelpful. It should be noted here that replies of an unfavorable nature were made in relationship to problems encountered by teachers involved with language experience activities. Apart from these specific references to meetings and visitations, 12 teachers commented favorably on the <u>total</u> in-service education program, while eight others found that the overall effect of the program was not beneficial. Asked how

other teachers felt about the consultation the CRAFT teachers were receiving, most indicated that non-CRAFT teachers were unconcerned, or displayed no hostility toward the fact that they themselves were not either in the project or receiving help. In this respect, these non-CRAFT teachers apparently looked on the amount of work that had to be done by the CRAFT teachers as an unrewarding burden. However, six teachers noted that non-CRAFT teachers did display elements of resentfulness and jealousy because they did not receive consultant help.

In a final series of questions, teachers were asked to comment on the relative strengths and weaknesses of the experimental design and whether or not they would be willing to participate in another research project. In relation to the last question, 24 teachers answered in the affirmative, 9 said they would not, 2 qualified their responses by saying they "probably" would, and the remaining teachers said that much would depend on the type of project in which they were involved. Reticence to participate in a new project or to temper endorsement of participation in a new project could possibly be related to some of the weaknesses enumerated by teachers as they reflected on their participation in CRAFT. Having to "stick" with one method seemed to be the outstanding complaint among a number of teachers. As a result of adherence to what they considered a "rigid," "inflexible" policy, they felt that they were not able to give children advantages of the strengths of other programs. It appears then, that teachers were generally and genuinely concerned about the achievement of the children in their classrooms and felt restricted by not being able to deviate from one mode of instruction.

Other teachers mentioned lack of adequate organization as an inhibiting factor in the progress of the study. They specifically mentioned the

inadequate orientation and preparation. Most would have opted for an in-service program prior to the commencement of the study.[1] A majority of the respondents who expressed these feelings were in the LE Approach and as has been mentioned previously, many of these teachers were handicapped either by the lack of equipment at the outset of the program, and/or by the fact that they were totally unfamiliar with an approach in which they had to develop many of their own instructional materials.

A few teachers felt that teacher-made changes in the program during the progress of the study was a weakness. Specifically, they mentioned the lack of adequate controls or supervision and the fact that some teachers bootlegged materials into their classrooms which were in opposition to the methods that they were expected to follow.

That teachers had to engage in extra work, the inconvenience of attending central meetings, and the fact that materials were not available in sufficient quantity to LE teachers were all cited as weaknesses of the program by three or more teachers. Cited less frequently, and in descending order of frequency were: heterogeneity was too difficult to cope with, school administrators did not cooperate sufficiently, teachers had to learn while the study was in progress, and the keeping of time logs, as well as the intrusion in the classroom by observers measuring teaching style were unwelcome distractions. In relation to the last point, one teacher pointed out that most teachers will do what is expected of them during the time the observer is in the classroom, but that they will revert to their "regular" mode of teaching after the observer leaves.

---

[1]Notice of award of the original contract was received in June and the program had to start in September, making it impossible to provide more intensive training prior to the beginning of instruction.

On the other hand, almost all of the teachers felt that the materials provided were a strength of the project. The consultant help was likewise considered a strength as was the association with the director of the project, Dr. Harris. Teachers also cited the fact that they learned from the participation, since they were provided with the opportunity to try out and "ventilate" new ideas.

Finally, teachers cited the fact that the help received by children through the various methods was a strength of the study, and that likewise the amount of knowledge obtained by the teachers was an asset that would remain with most, and become an influencing factor in years to come.

Reaction of Administration

Effects on Pupils

Of the ten administrators interviewed, seven found positive changes, particularly in the area of reading, among children who participated in CRAFT. Changes were noted in better achievement, a more positive attitude toward reading and greater interest in learning during and after CRAFT. One principal felt that he could not attribute this growth solely to CRAFT, but rather to a combination of school improvements. Three principals indicated finding no striking or obvious changes in their CRAFT population.

When asked how the project affected children who were not CRAFT participants, two administrators responded that CRAFT classes, although composed of a heterogenous population, were considered the more prestigious ones. Three administrators felt that children in non-CRAFT classes also benefited from the project. Other children were influenced by the enthusiasm of CRAFT children for better achievement, or by having the "better" trained CRAFT teachers when the project was over. One of the interviewees described an overall rise in reading level but again was hesitant to attribute it solely

to CRAFT. Half of the administrators interviewed felt that there was no transfer of benefits to non-CRAFT children in the school.

Effects on Teachers

During the study, in seven of the schools interviewees felt that CRAFT teachers tended to develop greater effectiveness in teaching, better style, and greater enthusiasm. However, in two schools, administrators felt that interest and morale waned as supervision became less frequent and as difficulty was encountered in the distribution of equipment. Some of the teachers began to feel restricted by rigid control of their method. They also disliked the extra meetings, paperwork and testing required by the study. Two administrators observed no changes in the teachers' manner of instruction, and one administrator did not feel sufficiently knowledgeable on the matter to comment. In response to questioning on the post-project behavior of the teachers, six of the principals agreed that teachers maintained their increased effectiveness and enthusiasm as well as their generally improved style of teaching.

An effort to determine how administrators viewed teacher effectiveness resulted in conflicting reactions. Six administrators found certain teachers to be more effective with one method than with another. They felt that teachers who were most successful with the BR and PV Methods were more traditional, structured, and usually more experienced. The successful LE and LE-AV teachers tended to be younger, more imaginative, and creative. The other four administrators felt there was no real relationship between personality or experience variables and success in a method. One of these administrators commented that a good teacher will be good with any method, while a poor teacher will be ineffective with any method. Another of these

administrators expressed the feeling that all teachers needed and searched for structure in their teaching.

In relation to the effectiveness of the in-service program, there was mixed reaction among administrators. In six schools, reading consultants and in-service courses were viewed as a great help. Two administrators judged the training program as no help at all, one administrator reserved comment, and another administrator reported that teachers viewed the training sessions and consultant visits as an imposition.

Effects on Administrators

A majority of administrators (eight) found that participation in the project was "interesting," and/or "exciting." They felt it gave them some new ideas to follow, alleviated the problem of teacher education and supervision, and also demonstrated positive results. Two of the administrators were not enthused by participation in the CRAFT Study.

Administrators were next queried about the experimental method they preferred. In two schools where the PV and LE-AV Methods of instruction were used, administrators favored the PV Method. The only reason given for the preference was that the PV Method was "more structured." The administrator of the third school mentioned that he liked a combination: beginning instruction with LE-AV and, later, PV. Two of the three administrators who had PV and LE classes in their school indicated a preference for the PV Method because it produced better achievement results and also because of its structure. The third administrator preferred the LE Method. He felt it was more dynamic, self-motivating, and meaningful to the urban Negro child.

Three schools had a combination of LE and BR classes. The administrator of one of these schools indicated that it was not the method but the

ability of the teachers that determined pupil achievement. The other two principals expressed a preference for the LE Method because it was more stimulating. The remaining school had had a combination of LE-AV and BR Methods. Here, LE-AV was the principal's choice since he found it gave the children a richer background and provided them and the teacher with more materials. In his view, the BR Method was too restrictive.

Placement during the CRAFT Study had been arranged on the basis of random selection. Thus, all CRAFT classes were heterogenous. Only one principal maintained this type of grouping and has begun to extend it through the grades. He felt that the CRAFT Project gave him the opportunity to prove to his teachers' satisfaction that this type of grouping was feasible. All other administrators make pupil grade placement on a "homogenous" basis.

Five administrators continue to supply teachers with some of the LE and PV materials and LE-AV equipment introduced by CRAFT. The other administrators don't. Lack of sufficient funds was a reason given by two. Other reasons included the fact that since the school was permitted to keep the equipment after the study it was now sufficiently supplied. A principal who had been transferred to a new school explained it would take him years to be able to provide even a minimal amount of teaching materials.

Effects on Reading Curriculum

Since the conclusion of the experimental program, one school adopted the PV sequence in all its first and second grades. Five other administrators felt that aspects of the CRAFT program had been integrated into the school curriculum. There was increased use of experiential materials, somewhat less exclusive use of basal readers, a greater emphasis on individuation, and greater use of audio-visual equipment. Schools exposed to the PV Method accepted parts of the phonics sequence on an on-going basis.

Two school administrators are attempting to establish a flexible CRAFT-like program in the early grades of their school. Two administrators expressed the feeling that changes in the curriculum depend on teacher preferences. One school is involved in another research project which requires alteration of the curriculum to a linguistic-oriented one. Another administrator expressed his satisfaction with the traditional eclectic BR Method of instruction. One principal described changes which had occurred as a result of Board of Education innovation, such as more teachers per pupil on the lower grades and more time spent on reading. He indicated that these changes in curriculum were, at least in his school, not associated with CRAFT. The remaining two principals indicated that there were no plans for changes in the curriculum.

Effects on Parents

There appeared to be mixed reaction among parents as to their children's participation in CRAFT. Principals of six schools found that parents liked having their children participate in the CRAFT Project; in one of these, the parents felt excited, and in another, particularly proud that their children had been placed in CRAFT classes. Three administrators found no evident change in parental interest or attitude toward the project. The tenth administrator found opposition to the projects. Parents resented the fact that their children did not have basal readers in one method, and in the other, that they couldn't take the readers home, although they had them.

All indications of parental involvement could only be described as slight. At no time was there evidence of parental interest beyond that of other classes or during other years.

General Impression

Administrators felt that the strength of the program was the dissemination of new ideas through teacher consultation, supervision and in-service meetings which also provided a professional experience for teachers, pupils, and administrators. In the LE Methods, teachers were given the opportunity to be more creative than at any other time in their career. PV and BR teachers became more knowledgeable about the rationale, implication and nuances of their methods. Teacher and pupil interest in CRAFT carried over in some schools to non-CRAFT teachers and pupils who thus also benefited from the study.

The project director was enthusiastically mentioned as a particular strength due to his experience and knowledge in the area of reading.

Principals elaborated on the weaknesses as well as the strengths of the study. Among the weaknesses of the study that were pointed out was the difficulty encountered in the distribution of materials and equipment. Administrators in schools where the LE Approach was being used echoed the reaction of their teachers. LE teachers particularly felt they would have benefited greatly from considerably more workshop sessions both prior to and during the project. Similarly, SC Approach teachers felt restricted within the prescribed methodology and felt they would have been more effective with a combined method. Various aspects of the study design were also criticized. Among these was the heterogenous grouping of children which some administrators felt made teaching a chore, and the heavy reliance on volunteers among teachers.

Asked if they would be willing to participate in another research study, six administrators answered in the affirmative. The remaining administrators added qualifications, stating that participation would depend on the nature

of the project to be undertaken. One principal declined because all of his teachers were new and he felt participation in research would be too taxing for them.

San Diego Attitude Inventory

Thirty-three teachers participated in the follow-up study who had also taken the attitude inventory on three previous occasions. Because of the small N, the statistical analysis was carried out on the basis of approach rather than by methods. Seventeen of the teachers had participated in the Skills Centered Approach and 16 in the Language Experience Approach.

Results of the follow-up Posttest (Table 1) reveal that teachers in both SC and LE Approaches had scores that were highest on the scale corresponding to basal reading and lowest on the scale relating to the LE Method. Mean scores indicating teacher attitude toward the Individualized Scale fell between mean scores for the Basic and Language Experience Scales for teachers in both approaches. All of the mean scores, except one, fell within the range of 33-44, indicating that teachers "tended to agree" with the statements relating to the three scales. The exception was a mean score of 31 for SC teachers on the Language Experience Scale indicating a "tendency to disagree" with components of the LE reading program.

Although five of the six mean scores fell within the "tendency to agree" range, there were several instances of significant differences when scale scores were compared. Specifically, teachers in the SC Approach had significantly higher mean scores on the Basic Scale than on either the Individualized or Language Experience Scale and the same teachers had mean scores on the Individualized Scale that were significantly higher than mean scores on the Language Experience Scale. As for teachers in the LE Approach, their

mean score on the Individualized Scale was higher at the .05 level than their score on the Language Experience Scale. No other differences were significant.

Table 2 demonstrates changes that occurred in teacher attitude at the outset of the study, while it was in progress, and after the experimental aspects had been concluded.

Surveying the means of the SC teachers for the scale corresponding to basal reading indicates only slight and non-significant differences. Scores ranged from a high of 44.59, while the study was in progress, to a low of 43.35 when the third year posttest was given. All of the scores on the Basic Scale fell into the "tendency to agree" category as did mean scores for these same teachers on the Individualized Scale. On that latter scale, teachers had significantly higher mean scores at the beginning of the study than they did while the study was in progress, and, although scores made by this group at the beginning of the study were higher than after the study was completed, the differences here were not significant. In relation to this, SC teachers were slightly more inclined toward the Individualized Scale after the study was completed than while it was in progress. These same teachers had lowest mean scores throughout the three years of the study in relation to the Language Experience Scale, ranging from a low of 29.41, while the study was being conducted, to a high of 35.94 before the study began. While the latter score fell into the "tendency to agree" category, all subsequent scores were in the "tendency to disagree" category. It should be pointed out that the attitude of SC teachers toward the Language Experience Scale at the beginning of the study was significantly higher than it was after the study had been concluded.

As for the LE Approach teachers, there were no significant differences on any of the scales when first year pretest and third year posttests were

compared. However, there were numerous differences of a significant nature when comparisons were made over the three-year period. Specifically, LE teachers who "tended to agree" with the Basic Scale before and after the study, "tended to disagree" while the study was in progress. In contradistinction to this finding, the same teachers had lower scores on the Individualized and Language Experience Scales before the study began, higher scores while the study was in progress, and lower scores again after the study was finished. All of these differences were significant.

Summary and Conclusions

This study was undertaken in an effort to determine characteristics of a reading program which are sustained following the conclusion of a research study in which experimental methods and materials have been used. On the basis of personal interviews with teachers and administrators involved in the CRAFT Study in the New York public schools, it was learned that an overwhelming majority of teachers are no longer using the experimental method in the same way as they had done while the study was in progress. Rather, these teachers who were using a Language Experience Approach have essentially reverted to a former mode of instruction, where the basal reader serves as the basic tool of instruction. Since selection of a teaching method in the New York schools is largely optional, it must be assumed that, for most teachers participating in the study, a decision to use basal materials was more often based on personal preference than on an administrative edict. Since the results of a teacher attitude inventory also indicates that CRAFT teachers are now favorably disposed toward basal reading instruction, it is rather obvious that there is a strong relationship between attitude and choice of approach.

It should also be pointed out that teachers in the Skills Centered Approach who used basal readers as the chief instructional materials continued to rely on these materials after the study was concluded. However, they were using the method somewhat differently and not as the only tool of instruction.

In no instance was there uniformity of opinion among teachers in any one of the four methods when they were asked to evaluate the relative effectiveness of the program they used during the study.

For example, the value of a Phonovisual word recognition program was debated among teachers using that method. Whereas some teachers felt that the repetition of word analysis skills was beneficial to the children participating in the study, a dissenting group felt that it was not helpful to teach phonic analysis to these children as advocated by the Phonovisual manual, that is, in isolation and apart from meaningful context. The group of teachers who did not condone this practice complained that the children could not make the necessary transfer of skills taught in this manner to reading materials presented in a functional setting.

Apart from the conflicting opinions about some elements of each method there was some unanimity regarding selected strengths and weaknesses of the methods.

Both BR and PV Methods were praised because of the structure of their programming, a component of their materials which teachers feel is necessary and desirable for the type of child participating in this study. Teachers using the LE Method were generally satisfied with the opportunities to use more diversified materials and the LE-AV group agreed that the equipment used in their instructional program served as a stimulant to most children in their classes.

On the other hand, teachers in both approaches felt handicapped by vocabulary problems, in the SC Approach because it was too restricted and in the LE Approach because it was too uncontrolled. As a consequence, almost all teachers have abandoned strict adherence to one method and have attempted to capitalize on the strengths of the various reading programs. What has emerged in these classrooms is essentially a basal reading program supplemented by word analysis materials and components of LE procedures. For many teachers the resultant program represents a return to the kind of program they had utilized prior to the time the project began. This situation closely parallels findings on the teacher attitude inventory which reveal that as a group, and irrespective of the approach they used, teachers were more favorably disposed toward basal reading at the outset of the study and held similar opinions one year after the experimental aspects of the study had been completed. Interestingly enough LE Approach teachers had highest scores on the Individualized and LE Scales while the project was in progress, indicating that the experimental design was not influenced by an unfavorable attitude toward the approach they were using. After the study was completed, however, these same teachers were in favor of basal reading. Thus, it appears that teacher apprehension about components of the LE Approach influenced their attitude and ultimately their decision in opting for a teaching approach based on basal readers and related materials.

Similarly the difficulties of most teachers in coping with the wide range of achievement created by heterogeneous classes prompted all but one school administrator to return to a pattern of grouping children by some element of homogeneity. Thus, teachers not only returned to a familiar pattern of instruction but also to a previous method of coping with individual differences.

These findings would appear to have significant implications for research studies which report results of short term studies, and, in particular, results of studies in which the experimental design is still in effect. Since this study indicates that teachers often do not continue the experimental procedures, it may be premature in some instances to draw any kind of definitive conclusions from in-progress studies.

Although some teachers indicated that some aspects of the study were undesirable and had a somewhat negative influence on their professional growth (teachers cited the inconvenience of attending in-service meetings as an unsatisfactory aspect of the study) an overwhelming majority did indicate that participation in the research had a salutary effect on their professional ability. Elementary school administrators of the CRAFT schools generally supported this view. A majority of these administrators indicated that CRAFT teachers evidenced more enthusiasm and teaching expertise than had been the case when they were not involved in the study. This teacher growth could be attributed in part to the consultant services provided teachers, and exposure to new ideas about the teaching of reading, as well as the practical implementation of these ideas. Many of these same administrators also indicated that the professional growth of teachers resulted in higher pupil achievement. In addition, many CRAFT pupils were felt to evidence a more positive attitude toward and interest in reading both during and after the study, as compared to similar pupils not in the project.

Although the teaching population of CRAFT, as well as the children, appeared to have benefited from participation in the project, there did not seem to be much effect of the study on non-CRAFT teachers in the same schools, at least to the extent that other teachers adopted experimental methods. This is not difficult to understand when one considers that an

overwhelming majority of teachers in the experimental schools are using basal materials, the same form of instructional program presently adopted by almost all of the CRAFT teachers.

Whether or not some relationship exists between instructional method and the personality characteristics of the teacher could not be ascertained in this study except subjectively. In general, teachers and administrators felt that the teacher who evidenced characteristics of vitality, enthusiasm, and flexibility would probably have more success using either of the LE Methods, whereas the more structured, possibly older, and more experienced teacher would be temperamentally better suited to the SC Approach. It should be pointed out that these judgments in regard to teaching style were not based on any experimental data but reflected hunches of teachers and administrators. The question of whether teacher personality is actually related to teaching success in a particular method is undoubtedly a worthy research undertaking, but one that was not tested in this study. It should also be stated here that certain teacher variables including age, teaching experience, and education did not correlate with achievement outcomes.

The impact of the study on the community was not very noticeable. There were both positive and negative reactions toward having children participate in the study; however, the reaction among parents was very slight. Parental participation and/or interest in school activities remained similar to other years.

Although teachers and administrators cited several aspects of the research design that they considered undesirable, most felt that they would be willing to participate in further research studies. In general, participants expressed the opinion that the project had worthwhile effects, not

only in terms of increasing the store of reading research results, but also in terms of the very practical benefits of teacher training and in the improvement of children's reading abilities.

Table 1

San Diego Teacher Inventory of Approaches to the Teaching of Reading Administered to CRAFT Teachers Still in the Classroom (Spring, 1968)

Approach	N	a) BASIC SCALE Mean	S.D.	ab r	ab t	b) INDIVIDUALIZED Mean	S.D.	bc r	bc t	c) LANGUAGE-EXPERIENCE Mean	S.D.	ac r	ac t
Skills Centered	17	43.35	5.94	.12	2.82*	37.94	6.04	.75	6.60**	31.41	5.41	.08	6.40**
Language Experience	16	39.50	5.74	.00	.40	38.62	6.68	.86	2.95*	35.94	6.99	-.14	1.48

* $P < .05$
** $P < .01$

Table 2

Comparison of San Diego Teacher Inventory of Approaches to the Teaching of Reading over Three Years

Scale	N	a) 1st Year Pretest		b) 1st Year Posttest & 2nd Year Pretest		c) 2nd Year Posttest		d) 3rd Year Posttest	
		Mean	S.D.	Mean	S.D.	Mean	S.D.	Mean	S.D.
Approach									
Skills Centered									
Basic	17	44.24	3.59	43.70	4.93	44.59	4.30	43.35	5.94
Ind	17	39.35	5.60	35.82	5.94	35.94	6.92	37.94	6.04
LE	17	34.44	6.80	29.65	6.00	29.41	8.99	31.41	5.41
Language Experience									
Basic	16	42.62	5.48	32.38	6.86	32.44	7.25	39.50	5.74
Ind	16	39.69	3.74	43.00	5.14	43.31	4.87	38.62	6.68
LE	16	38.56	6.14	45.56	5.33	43.56	5.16	35.94	6.99

Approach	N	ab		ac		ad		bc		bd		cd	
		r	t	r	t	r	t	r	t	r	t	r	t
Skills Centered													
Basic	17	.30	-1.17	.21	- .29	.17	.57	.38	.88	.10	1.32	.48	.95
Ind	17	.51	2.56*	.51	2.24*	.51	1.01	.82	- .12	.71	-1.94	.73	-1.70
LE	17	.30	3.41**	.55	3.46**	.38	2.71*	.76	.17	.76	-1.83	.79	-1.44
Language Experience													
Basic	16	-.03	4.61**	-.08	4.32**	.02	1.59	.55	- .04	-.21	-2.90*	-.16	-2.84*
Ind	16	.22	-2.35*	-.11	-2.25*	.34	.67	.62	- .28	.44	2.74*	.22	2.56*
LE	16	-.09	-3.30**	.04	-2.54*	-.16	1.04	.41	1.40	.41	5.65**	.37	4.37**

* P < .05
** P < .01

References

Bond, G.L., and Dykstra, R. The cooperative research program in first-grade reading instruction. Reading Research Quarterly, 1967, 2(4), 1-142.

Harris, A.J., and Serwer, Blanche L. Comparing reading approaches in first-grade teaching with disadvantaged children. The Reading Teacher, 1966, 19, 631-635.

Harris, A.J., and Serwer, Blanche L. Comparison of reading approaches in first-grade teaching with disadvantaged children: the CRAFT Project. Final Report, Cooperative Research Project No. 2677. New York: Division of Teacher Education, The City University of New York, 1966.

Harris, A.J., and Serwer, Blanche L. The CRAFT Project: instructional time in reading research. Reading Research Quarterly, 1966, 2, 27-56.

Harris, A.J., Serwer, Blanche L., and Gold, L. Comparing reading approaches in first-grade teaching with disadvantaged children--extended into second grade. The Reading Teacher, 1967, 20, 698-703.

Harris, A.J., Morrison, C., Serwer, Blanche L., and Gold L. A continuation of the CRAFT Project: comparing reading approaches with disadvantaged urban negro children in primary grades. New York: Associated Educational Services Corporation, 1968.

Morrison, C., and Harris, A.J. Effect of kindergarten on the reading of disadvantaged children. The Reading Teacher, 1968, 22(1), 4-9.

San Diego County Department of Education, Reading Study Project Committee. Teacher inventory of approaches to the teaching of reading, 1961, 3.